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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/777,210

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Christopher R. Cording

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ROTHWELL, FIGG, ERNST & MANBECK, P.C.

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WASHINGTON, DC 20005

EXAMINER

GILBERT, WILLIAM V

ART UNIT

PAPER NUMBER

3635

NOTIFICATION DATE

DELIVERY MODE

04/03/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary	Application No. 10/777,210	Applicant(s) CORDING, CHRISTOPHER R.	
	Examiner William V. Gilbert	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-21, 23-28, 30-42, 44-74, 76-85 and 87-123 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-21, 23-28, 30-42, 44-74, 76-85, 87-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This is a non-final Office action. Claims 4, 22, 29, 43, 75 and 86 have been cancelled. Claims 1-3, 5-21, 23-28, 30-42, 44-74, 76-85 and 87-123 are pending and examined below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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Claims 1-3, 5-21, 23-28, 30-42, 44-74, 76-85 and 87-123 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heaney (U.S. Patent No. 4,477,129) in view of Misonou (U.S. Patent No. 6,830,791)

Claims 1, 26, 47, 61, 71, 90, 104 and 117: Heaney discloses a door having inner, outer and middle sheets of glass (Fig. 7: 70, 70', 70''), first and second sealants (Fig. 7, the seals are between the glass sheets) and a frame (see Fig. 7, generally). Heaney discloses a coating (75), which may be placed on virtually any of the panels (Col. 8, lines 34-40). Heaney does not disclose two emissivity coatings. Misonou discloses a glass panel system with an emissivity coating (Col. 4, lines 46-50). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use emissive coatings in order to aid in the reduction of heat transfer through the glass sheets. It is well known in the art that coatings such as this aid in the reduction of heat transfer through glass. Further, it would have been obvious at the time the invention was made to a person having ordinary skill in the art as a matter of duplication of parts to have multiple coatings because duplication of parts has no patentable significance unless a new and unexpected result is produced. *In re Harza*, 274 F.2d 669 (CCPA 1960). See MPEP §2144.04. Next,

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the prior art of record does not disclose the U-value as claimed. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have this limitation because optimization of a particular feature of an invention will not support patentability of subject matter encompassed by the prior art unless there is evidence indicating such a limitation is critical. See M.P.E.P. §2144.05 "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454 (CCPA 1955) (Claimed process which was performed at a temperature between 40C and 80C and an acid concentration between 25% and 70% was held to be *prima facie* obvious over a reference process which differed from the claims only in that the reference process was performed at a temperature of 100C and an acid concentration 10%.) To design a product to conform to standards, such as required by the United States, would be well within the level of skill in the art so that the apparatus could actually be used. If an apparatus does not conform to the required governing standards, then one could not sell and market the invention. Per Claim 104, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have the temperature limitations as a design choice

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in order to have an apparatus that would resist condensation. The phrase "adapted for use in a refrigerator compartment" (e.g. claim 1, lines 1 and 2) is a statement of intended use of the claimed invention and must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claims 2, 27, 52, 64, 72, 91 and 119: Heaney discloses a first chamber (72), a second chamber (74), and a gas (air) in the chambers.

Claims 3, 6, 28 and 77: the prior art of record does not disclose the thickness nor spacing as claimed. It would have been obvious at the time the invention was made to a person having ordinary skill in the art as a matter of design choice to have this limitation in order to make a relatively light structure that would resist breaking and still function properly.

Claims 5, 23-25, 44-46, 53, 65, 76, 87-89, 94, 101-103, 109, 116, 120 and 123: while the prior art of record does not

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disclose the heat transfer rate as claimed, it would have been obvious at the time the invention was made to a person having ordinary skill in the art as a matter of design choice to have this limitation in order to have a structure that functioned properly to conform to US regulations while preventing the fogging of the panels. Further, It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have this limitation because an optimization of an invention will not support patentability of subject matter encompassed by the prior art unless there is evidence indicating such a limitation is critical. See M.P.E.P. §2144.05 "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454 (CCPA 1955) (Claimed process which was performed at a temperature between 40C and 80C and an acid concentration between 25% and 70% was held to be *prima facie* obvious over a reference process which differed from the claims only in that the reference process was performed at a temperature of 100C and an acid concentration 10%.)

Claims 7 and 8: while the prior art of record discloses the gas is air (Heaney), it does not disclose that the gases in the

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two chambers are the same or different, though Misonou discloses various gases (Col. 10, lines 10-15). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have this limitation because each inert gas would perform successfully and one could place a different gas in each chamber.

Claims 9, 30, 54, 66, 79 and 97: the gas is air (Heaney).

Claims 10, 31, 34, 55, 67, 68, 80, 98, 108 and 110: the prior art of record discloses the claimed invention except for the U value of the glass. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have this limitation because optimization of a particular feature of an invention will not support patentability of subject matter encompassed by the prior art unless there is evidence indicating such a limitation is critical. See M.P.E.P. §2144.05 "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454 (CCPA 1955) (Claimed process which was performed at a temperature between 40C and 80C and an acid concentration between 25% and 70% was held to be

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prima facie obvious over a reference process which differed from the claims only in that the reference process was performed at a temperature of 100C and an acid concentration 10%.) It is well known in the art to design an apparatus to conform to design standards.

Claims 11-15, 32, 33, 35, 36, 56-58, 69, 70, 81-83, 99, 100, 111-113, 121 and 122: the prior art of record discloses the claimed invention except for the emissivity rating. It would have been obvious at the time the invention was made to a person having ordinary skill in the art as a matter of design choice to have this limitation in order to minimize the level of heat transfer among the panels to prevent condensation. Further, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have this limitation because an optimization of an invention will not support patentability of subject matter encompassed by the prior art unless there is evidence indicating such a limitation is critical. See M.P.E.P. §2144.05 "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454 (CCPA 1955) (Claimed process which was performed at a temperature between 40C and 80C

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and an acid concentration between 25% and 70% was held to be *prima facie* obvious over a reference process which differed from the claims only in that the reference process was performed at a temperature of 100C and an acid concentration 10%.)

Claims 16, 37 and 84: the prior art of record discloses the emissivity coating is fluorine doped tin oxide (Misonou: Col. 4, lines 45-50).

Claims 17, 38 and 85: while the prior art of record does not disclose the method of application, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to apply the coating as a spray coating because it is well known to spray liquids onto surfaces to facilitate even coatings.

Claims 19-21, 40-42, 50, 51, 59, 60, 107, 114, 115: while the prior art of record does not disclose the temperatures and humidity as claimed, it would have been obvious at the time the invention was made to a person having ordinary skill in the art as a matter of design choice to have the limitations because one of ordinary skill in the art can set the climate control of a refrigerator and building and the prior art of record is capable

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of not forming condensation.

Claims 48, 62, 73, 92, 105 and 118: the prior art of record (Heaney Fig. 7) discloses a second sealant assembly and a third sheet of glass which form the insulating glass unit.

Claims 49, 63, 74, 93 and 106: the prior art of record discloses a low emissive material for coating the sheets of glass (Misonou Col. 4, lines 45-50).

Claims 78, 95 and 96: the glass is in a door frame (Heaney: Fig. 1).

Claims 18 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heaney and Misonou as applied to the claims above, and further in view of Richardson (U.S. Patent No. 5,113,628).

Claims 18 and 39: the prior art of record discloses a frame (Heaney: Fig. 6), but it does not disclose the material of the frame as claimed. Richardson discloses a clear panel with a frame made of plastic (Col. 4, lines 60-65). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have the frame of plastic because

these materials are well known in the art for the use of frames and would perform equally as well.

Response to Arguments

2. Applicant's arguments, see Remarks, filed 17 February 2009, with respect to the rejection(s) of the claim(s) under 35 USC §103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the prior art cited above.

The applicant's clarification of the U-value as being data obtained by the applicant's own experience is noted and the rejection is withdrawn for that reason, however, see the newly cited rejection above.

Regarding the issue that Misonou teaches the use of a panel system that contains a vacuum between the panels, the examiner considers this point irrelevant because Misonou was used to teach that emissivity coatings could be used in conjunction with glass panels. The vacuum portion of the panels is not pertinent to the rejection.

Regarding applicant's argument that U-values are not an inherent feature, the examiner respectfully disagrees. The U-value is a measurable feature (such as volume, mass, density,

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etc.) Regardless of the level of the level of the U-value, it does exist.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William V. Gilbert whose telephone number is 571.272.9055. The examiner can normally be reached on Monday - Friday, 08:00 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571.272.6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/W. V. G./
Examiner, Art Unit 3635
/Basil Katcheves/
Primary Examiner, Art Unit 3635